

§ 1.129(a). The Examiner is requested to enter the following amendments. A response to the Office Action mailed December 12, 1997 (the "Action") is included and the Examiner is requested to consider the remarks therein. This response is timely filed in consideration of the petition for a three month extension and fee, enclosed herewith. Re-examination is respectfully requested. Should it be determined that any additional fees are required under 37 C.F.R. §§ 1.16-1.21, the Assistant Commissioner is authorized to deduct said fees from Arnold, White & Durkee Deposit Acct. No. 01-2508/ARCD:010/NAK.

AMENDMENTS

In the Claims:

Please amend the claims as follows:

1. (Three times amended) A composition comprising [a pair of] at least two probes, each labeled with a distinguishable label, for detecting a chromosomal aberration [which juxtaposes] involving the BCR and ABL genes, [said pair comprising a first and second nucleic acid probe,] said chromosomal aberration having an ABL gene side and a BCR gene side, wherein one of said probes hybridizes to [said first probe capable of specifically hybridizing to a part of] the ABL gene [on one] side of said chromosomal aberration and the other of said probes hybridizes to [said second probe capable of specifically hybridizing to a part of] the BCR gene [on the other] side of said chromosomal aberration, wherein said probes hybridize to an aberrant chromosome [wherein a hybridization site for the first probe and a hybridization site for the second probe are brought within approximately 800 kb of each other by said chromosomal aberration].

E2
G2
2. (Amended) [The composition of claim 1 wherein the probes are labeled] A composition comprising at least two probes for detecting a chromosomal aberration, each probe labeled with a distinguishable label, wherein one of said probes hybridizes to a part of the ABL gene on one side of said chromosomal aberration and the other of said probes hybridizes to a part of the BCR gene on the other side of said chromosomal aberration, wherein said probes hybridize to an aberrant chromosome.

3. (Amended) The composition of claim 2 wherein [each probe label is distinct from each other] said probes hybridize within approximately 800 kb of each other in said aberrant chromosome.

E34
4. (Twice Amended) The composition of claim [4] 1 wherein the labels comprise fluorescent labels.

E49
5. (Three Times Amended) The composition of claim 1 wherein one of said [first] probes is capable of hybridizing to at least a portion of the last exon of the ABL gene and the other of said [second] probes is capable of hybridizing to at least a portion of exon I of the BCR gene.

E5
6. (Amended) [A] The composition of claim 1 wherein one of said [genetic] probes is capable of hybridizing to [the 5' region of] the major breakpoint cluster region (M-bcr) of chromosome 22[as illustrated in FIG. 2A and FIG. 4].

19 ~~20~~ ~~22~~. (Twice Amended) [A] The composition of claim 1 wherein one of said [genetic] probes
is capable of hybridizing to the first exon of the BCR gene[as illustrated in FIG. 2A].

20 ~~21~~ ~~23~~. (Twice Amended) [A] The composition of claim 1 wherein one of said [genetic] probes
is capable of hybridizing at least a part of the last exon of the ABL gene[, as illustrated in FIG. 5
and FIGS. 2B and 2C].

22 ~~24~~. (Twice Amended) [The] A genetic probe [of claim 21 wherein the probe comprises]
comprising PEM12.

23 ~~25~~. (Twice Amended) [The] A genetic probe [of claim 22 wherein the probe comprises]
comprising MSB-1.

24 ~~26~~. (Twice Amended) [The] A genetic probe [of claim 23 wherein the probe comprises]
comprising c-H-abl.

25 ~~27~~. (Twice Amended) The composition of claim 1 wherein [the first and second] said
probes comprise c-H-abl and MSB-1.

26 ~~28~~. (Amended) The composition of claim 1 wherein [the first and second] said probes
comprise c-H-abl and PEM12.

E7 ^{22 23 24}
concl'd
26. (Twice Amended) A kit for the detection of chromosomal aberrations comprising at least two genetic probes selected from claims ~~24, 23~~ ^{21, 22 and 23}, and ~~26~~ ²⁴, [21, 22 and 23, and a control,] each in separate containers.

- E8 ^{28 30}
30. (Amended) A kit for the detection of cancer in human cells, comprising:
- a) a carrier being compartmentalized to hold multiple containers;
 - b) a first pair of containers including the pair of genetic probes of claims ~~24~~ ²² and ~~26~~ ²¹ [21 and 23]; and
 - c) a second pair of containers containing the pair of genetic probes of claims ~~25~~ ²³ and ~~26~~ ²¹ [22 and 23].

E9 ^{22 23 32}
32. (Amended) The composition of claim ~~31~~ ^{29 21} wherein the presence of said fusion gene is diagnostic or prognostic for acute lymphocytic leukemia (ALL).

^{23 34}
34. (Amended) The composition of claim ~~31~~ ^{29 21} wherein the presence of said fusion gene [chromosomal aberration] is diagnostic or prognostic for [ALL and] chronic myelogenous leukemia (CML).

E10 ^{24 34}
34. (Amended) A kit for the detection of chromosomal aberrations, comprising a first and second nucleic acid probe, each labeled with a distinguishable label, said [a] first probe capable of specifically hybridizing to a part of the ABL gene on one side of said chromosomal aberration and